DSP Strategy for Supporting and Promoting Logistics Readiness

Interoperability and Logistics Readiness IPT

September 2001

Contents

Introduction

BACKGROUND

The Defense Standardization Program issued its Strategic Plan in October 1999 to address the management and leadership challenges of the 21st Century. The plan addresses six major focus areas: Interoperability; Logistics Readiness; Total Ownership Cost; Leadership and Management; Infrastructure; and Processes, Products, and Services. Each major focus area has an associated goal with specific objectives, actions, steps, and milestones. DLA and each Service took responsibility for developing implementation approaches for selected areas within the plan.

SPECIFIC IPT TASKING

This document addresses and combines Interoperability and Logistics Readiness IPT tasks I.A.1, II.B.1, and II.C.1 from the DoD Standardization Strategic Plan.

Logistics Readiness Goal The DSP improves logistics readiness by fostering technical and standardization expertise in the operations, acquisition, and logistics communities; by advancing standardization opportunities in the Contractor Logistics Support environment; and by promoting commonality of systems, components, and architectures.		
Objective I.A The DSP has coordinated cooperation among the operational, acquisition, and logistics communities and integrated processes with them to lay the foundation for achieving interoperability through commonality of systems, components, and architecture.		
Action I.A.1	**Key Steps**	**Lead**
Provide a source for commonality information and guidance	1. Identify and collect information exchange system requirements for linking operational, acquisition, and logistics commonality needs 2. Design and implement a commonality forum on the information exchange system 3. Monitor the use of commonality information exchange process	Navy

Objective II.B The DSP has surveyed the commercial environment to identify and make available effective standardization practices and processes to optimize contractor logistics support operations

Action II.B.1	Key Steps	Lead
Populate the information exchange process with appropriate contractor logistics support-related information	1. Identify and collect information exchange system requirements for CLS expertise 2. Design and implement a CLS forum on the information exchange system 3. Monitor use of the CLS exchange process	Navy
Objective II.C The DSP has coordinated cooperation among the operations, acquisition, and logistics communities to lay the foundation for achieving logistics readiness through commonality of systems, components, and architectures		
Action II.C.1	**Key Steps**	**Lead**
Provide appropriate forums and information for promoting logistics readiness.	1. Identify and collect information exchange system requirements for commonality needs 2. Design and implement a logistics readiness forum on the information exchange system 3. Monitor the use of logistics readiness information exchange process	Navy

LOGISTICS READINESS DEFINED

In a broad sense, logistics readiness encompasses the acquisition, transportation, distribution, inventory management, maintenance, and sustainment policies, practices, procedures, systems, and processes that contribute to the availability and combat readiness of weapon systems used by warfighters.

Logistics readiness covers a wide array of functions, many of which have little or no relationship to standardization; therefore, this set of recommendations will be concerned only with those standardization concepts, practices, processes, and so forth that have an influence on improving logistics readiness.

PROBLEM DEFINITION

The role of our military has changed substantially during the past 25 years. Since the end of the Viet Nam conflict and the collapse of the Soviet Union, the military has transitioned from a large force that deploys infrequently, to a smaller, more mobile force that must be able to deploy rapidly to threat areas around the world. Given this scenario, along with budget limitations, the Department recognized a need to increase logistics efficiency and lower costs. An area of particular importance is to improve the readiness of weapon systems while reducing the costs of their logistics chains. It is imperative to improve the "Tooth to Tail" ratio of our military forces, and to ensure that warfighters' needs are met by an agile logistics system.

NEED AND OPPORTUNITY

Standardization techniques, tools, and processes afford an opportunity to have a positive effect on logistics readiness. For example, standard parts can improve the acquisition process through larger purchase quantities. Common items reduce the need to carry inventory stock and simplify theatre maintenance of weapon systems.

Logistics, acquisition, maintenance, and supply specialists should be aware of the role that standardization plays in improving logistics readiness. Many techniques may be used to improve logistics readiness, and logisticians may be unaware of the contribution and benefits that standardization offers. The Standardization Information Exchange System (IES) Web Portal, as described by the Infrastructure IPT in its recommendations contained in Tab C1, will allow standardization information related to logistics readiness to be captured, presented, and shared among users.

OBJECTIVES AND DESIRED OUTCOMES

The objective of this strategy is to create new, effective resources that will promote the role of standardization in logistics readiness. Among the desired outcomes are a web-enabled knowledge-management portal for logistics readiness, effective forums for logistics readiness dialogue and decisionmaking, and links to standardization tools and resources that support logistics readiness. Collectively, these capabilities will assist in improving logistics readiness. The capabilities will integrate logistics readiness and standardization resources and clearly illustrate their essential relationship; standardization contributes to logistics readiness.

Recommendations

RECOMMENDATION #1

DSPO implement and maintain a standardization-related logistics readiness database. Use the database within the knowledge management portal as a tool to help users identify standardization products and processes that support logistics readiness.

RECOMMENDATION #2

Develop an accurate and complete roadmap of the logistics readiness community and make it available through the knowledge-management portal. Develop content areas to address commonality, parts management, contractor logistics support, and contract language/incentives.

RECOMMENDATION #3

Because the roadmap provides a valuable service to the logistics community, DSPO should seek sponsorship or partnerships from key DoD logistics organizations to share the costs or resources required to operate and maintain the service.

RECOMMENDATION #4

The DSPO, working with key DoD leaders and logistics offices, should advocate and promote the creation of logistics readiness networks.

Concept Overview

The core idea contained in this concept paper is very simple—create a complete and robust knowledge-management resource for the logistics readiness community. Design it as part of the DSP portal and link it to the DSP portal's standardization knowledge-management capability as seamlessly as possible.

While the core idea is simple, making the idea a reality is complex. The complexity lies in two areas. First, the concept of a logistics readiness community is new. Today, there really is no definable logistics readiness community per se. Some of the discussion in this section attempts to define the community. Second, logistics readiness itself encompasses a wide range of activities, but the IPT is only concerned with those where standardization has an effect. DoD personnel from different functional areas who are working to improve logistics readiness may not be aware of how standardization can facilitate their objectives.

The basic concept proposed in this paper, like the core idea, is simple; determining the right content and the boundaries of the portal-based logistics readiness knowledge-management resource is far more difficult. If the DSPO implements the recommendations presented in this concept paper, it will need to identify, gather, and integrate the logistics readiness and standardization knowledge elements into a useful portal-based resource. In this section, we provide lists of potential customers, programs, documents, and other topics to consider in the design of the portal-based logistics readiness knowledge-management capability.

The IPT received presentations from a number of different organizations using different techniques to improve logistics readiness. What became clear to the members was how diverse, disconnected, and hard to pin down the logistics readiness community really is. The range of activities ranges from lists of recommended parts through full contractor logistics support (CLS). It appears that no organization is taking the lead to integrate the community or to provide effective knowledge management resources to the community. However, the need for better integration and resources was obvious.

In this section, we also explore a range of logistics readiness-related topics in a somewhat philosophical manner. The exploration provides food-for-thought in designing a logistics readiness knowledge-management capability on the DSP portal.

The requirements and opportunities for logistics readiness and standardization are drawn from organizational affinities and mission requirements. A robust logistics readiness knowledge-management capability must be structured to support networking among the various affinity groupings of organizations and interests who must communicate, deliberate, negotiate, and agree on standardization solutions

for logistics readiness. Two essential affinity-based organizing principles are domains and missions.

DOMAIN-CENTERED LOGISTICS READINESS

Domains are large or important areas containing systems, items, or operating characteristics that perform inherently similar functions, use similar types of equipment, or operate in the similar environments. Domains are defined by the types of systems, materiel, or interest areas involved. Examples of possible domains include:

System-Level (Domain) Areas

1. Land Systems
2. Maritime Systems
3. Aviation Systems
4. Space Systems
5. Command/Control/Communication/Computers/Information Systems
6. Munitions
7. Missiles
8. Nuclear Ordnance
9. Automated Test Equipment
10. Modeling and Simulation Devices
11. Mapping
12. Medical Equipment

Sustainment Materiel (Domain) Areas

1. Electrical/Electronic/Electro-optical Components
2. Mechanical Components/Devices
3. Chemical Products
4. Material Products
5. Instruments and Laboratory Equipment
6. Clothing and Textiles
7. Subsistence Items
8. Machinery and Related Equipment
9. Construction Components
10. General Industrial Products

Special Interest (Domain) Areas

1. System Engineering
2. Technical Information
3. Facilities Engineering
4. Materials Technology
5. Standardization Program Management
6. Military International Standardization

The domains listed above are composed of organizations, programs, and people that share common themes and interests. The sample domain structure corresponds with the domain structure described in the Infrastructure IPT's set of recommendations concerning the Defense Standardization Program Structure. We need not be limited to categorizing logistics readiness opportunities into a single domain structure. We should be able to classify logistics readiness opportunities using the above domain structure and any other classification structure that customers may use. The same logistics readiness opportunity or requirement may be classified in multiple domains, and presented to the user in whatever domain structure the user is most familiar with.

Within each domain are requirements and opportunities for logistics readiness and standardization. For example, there may be opportunities to use common components on various ships within the Maritime Systems domain, which could improve logistics readiness.

Decisionmakers across each domain must communicate and negotiate to arrive at common, mutually satisfactory solutions to their shared problems and opportunities. Common Enterprise Forums, a concept addressed in another Infrastructure IPT recommendation, could provide an excellent forum for discussion of domain-based logistics readiness requirements and identification of domain standardization opportunities. The Infrastructure IPT also has recommended a knowledge management portal for standardization in a separate document. That same portal can provide the essential resources to facilitate, support, and document the work of Standardization Area Support Teams (SAST), customer functional boards, enterprise forums and the logistics readiness community. Logistics readiness domain content in the portal might address approaches, lessons learned, and successful standardization practices that have a positive influence on logistics readiness.

Domain-centered logistics readiness and standardization opportunities are defined within the acquisition community. Logistics readiness requirements and standardization opportunities exist across each domain within the individual Services, jointly across the Military Services and Defense Agencies, and between U.S. Forces and allied partners. Within domain-based discussion forums, dialogue may focus on acquisition and supply management issues.

MISSION-CENTERED LOGISTICS READINESS

The operations community defines mission-centered logistics readiness requirements. Missions frequently involve assets from many different domains. Examples of possible mission areas include:

1. Joint Operations
2. Air Operations
   - 2.1. Tactical Operations
   - 2.2. Air Transport
   - 2.3. Movement and Documentation

2.4. Helicopter
2.5. Search and Rescue
2.6. Flight Safety
2.7. Mishap Investigation

3. Land Operations
   3.1. Tactical Doctrine and Operations Procedures
   3.2. Movement and Transportation
   3.3. Logistics
   3.4. Artillery
   3.5. Battlefield Maintenance
   3.6. Combat Engineer
4. Naval Operations
   4.1. Amphibious Warfare
   4.2. Maritime Tactical
   4.3. Radiation Hazards
   4.4. Helicopter Operations from Ships (Non-Carrier)
   4.5. Military Oceanography
   4.6. NATO Shipping
   4.7. Replenishment at Sea
   4.8. Submarine Escape and Rescue
   4.9. Mine Warfare
   4.10. Diving Operations
   4.11. Maritime MISC
5. Electronic Warfare
6. Combined Combat Arms

The missions that use assets from multiple domains determine the scope of logistics readiness requirements and the related standardization opportunities. Often diverse assets must come together to perform their missions effectively. In mission-centered forums, issues of deployment and theater sustainment might predominate, with a focus on meeting the needs of the warfighter.

The forums dealing with mission-centered logistics readiness are essential elements in the total logistics readiness requirements determination system. The proposed logistics readiness and standardization portal must include these operations-focused bodies and their requirements. However, the portal primarily supports the acquisition community and coverage of mission-centered logistics readiness need only provide users with sufficient coverage to reflect the broader logistics readiness community.

Logistics Readiness Knowledge Management Portal Content and Features

Content and features will determine the value of the logistics readiness knowledge-management portal. In this section, we provide ideas for adding content and value to the logistics readiness knowledge-management resource.

IDENTIFY AND DOCUMENT THE LOGISTICS READINESS CUSTOMER SET

Standardization supports logistics readiness. Every organization, program, and person with an interest in logistics readiness by extension has some interest in standardization whether or not the connection is understood. Reasons for having logistics readiness and standardization together on the same portal are to show clearly the connection and to educate the logistics readiness community about the importance of standardization in achieving objectives.

Making logistics readiness a key portion of the DSP portal and making it as rich and useful as possible will help make the portal a magnet to draw in and educate the logistics readiness community about standardization products and services.

To the extent possible, the directory should be a complete reflection of the logistics readiness community. One way to accomplish this is to establish partnerships with key offices in the logistics readiness community who may be willing to manage the database, provide content for the directory, or provide resources to fund its maintenance.

Some logistics readiness customers are identified in the table below. Links to these and other customers would be provided on the portal. The customer list would be under continual refinement as new customers are added or existing customers disappear.

Focus Area	Customers/Organizations/Programs
Mission-Centered Logistics Readiness Requirements (Operations)	♦ JCS ♦ CINCS
Logistics Readiness Policy	♦ ADUSD (Logistics Plans & Programs) ♦ Army HTI ♦ Army Combat Support and Combat Services Support ♦ DoD Parts Management Committee ♦ Service Logistics Readiness Organizations
Land Systems	
Maritime Systems	Navy HM&E
Space Systems	
C4I Systems	
Munitions	
Missiles	
Nuclear Ordnance	
Automated Test Equipment	
Modeling and Simulation Devices	
Mapping	
Medical Equipment	
Electrical/Electronic/Electro-optical Components	Army Battery Standardization
Mechanical Components/Devices	Safety Critical Threaded Fasteners Groups (DSCP, ALCs)
Chemical Products	Joint Service Aircraft Fuels IPTs (ad-hoc)
Material Products	
Instruments and Laboratory Equipment	
Clothing and Textiles	
Subsistence Items	
Machinery and Related Equipment	
Construction Components	
General Industrial Products	
System Engineering	
Technical Information	
Facilities Engineering	Customers: CINCLANTFLT, CINCPACFLT, NAVSEA, CNET, NAVEUR, CNO, NAVAIR, RESFOR and USMC Organizations: NAVFAC Programs: MCON, ERN, FHN and BRAC
Materials Technology	
Standardization Program Management	
Military International Standardization	NATO, ABCA, AUSCANZUKUS, TTCP
Industry/Commercial	AIAA Preferred Parts for Aerospace Applications

CREATE A LOGISTICS READINESS ROADMAP

DoD organizations with logistics readiness responsibilities are potential key customers of standardization products and services. The DSP must be a key player where logistics readiness is a priority. DSP personnel need to be actively involved with the organizations working on logistics readiness issues. One way to help the standardization workforce engage more with the logistics readiness community is to provide them with a clear roadmap to the communities.

Part of the roadmap is a taxonomy for logistics readiness. There is no orderly classification system for listing the various areas and elements of the logistics readiness universe. The proposed taxonomy-based roadmap will serve as a guide to the logistics readiness community and help define the areas of opportunity. The roadmap will help form more effective networks for logistics readiness across the customer base.

CREATE A "WHO'S WHO IN LOGISTICS READINESS"

The roadmap will help create a directory of who's who in logistics readiness. It should list as many DoD, defense industry, and international organizations, programs, and projects with logistics readiness involvement as possible. The roadmap should group the listed organizations into useful categories and enable the directory users to sort and query by category. A single listed organization might surface in several different queries such as Service, domain, joint programs, or technology area. Where available, each listed organization should have associated useful information such as key points of contact, web addresses, mission, and activity status. Where feasible, DSPO should arrange with the listed organizations for them to maintain their associated data.

HELP BUILD LOGISTICS READINESS NETWORKS

The common enterprise forums, advocated by the Infrastructure IPT, are examples of how it may be possible to build logistics readiness networks across a domain. The portal should provide capabilities and features that will encourage and enable network formation. Various types of forums are possible, ranging from general topic-oriented threaded discussion spaces to dedicated domain, customer functional board, or team areas.

Key logistics readiness networks and their members might include the following entities:

- Commonality—DLA Centers, Service Logistics Organizations;
- Parts Management—DLA Centers, Program Offices, Non-government Standards Bodies;

- Contractor Logistics Support—Program Offices, Contractors; and
- Depot Maintenance—Service Organic Depots, Contractors.

IDENTIFY AND PROMOTE ACTION ON LOGISTICS READINESS AND STANDARDIZATION OPPORTUNITIES

The logistics readiness knowledge management portal must have resources that solicit, identify, and promulgate logistics readiness and standardization opportunities. Examples of logistics readiness–standardization use opportunities include

- using common parts lists on weapon systems contracts,
- using appropriate contract incentives to increase standard solutions, and
- identifying applicable materials or material attributes for specific applications.

Users should be encouraged to suggest opportunities. A list of suggested opportunities on the portal with potential players identified should be maintained. Potential opportunities should be explored and the results published. Responsibilities for evaluating opportunities based on the nature of the opportunity need identifying. For example, a SAST, customer functional board, or enterprise forum might be best qualified to evaluate a given situation.

IDENTIFY, LIST, AND INTERPRET LOGISTICS READINESS POLICY AND DIRECTIVES

The Standardization community should seek out and identify policies and directives that address logistics readiness issues. To aid users in obtaining these guidance documents, the Standardization community should create a searchable reference database for these documents and provide information or links. The DoD Logistics Strategic Plan is one example of a logistics readiness guidance document.

DEFINE AND COMMUNICATE LOGISTICS READINESS REQUIREMENTS

The Standardization community should seek out and identify documented logistics readiness requirements. These requirements may exist in International Standardization Agreements, interservice agreements, weapon systems contracts, and various other documents. The Standardization community should create a searchable reference database for these documents and provide information or links that will aid users in obtaining the documents.

IDENTIFY AND PROVIDE ACCESS TO STANDARDIZATION PRODUCTS AND TOOLS THAT SUPPORT LOGISTICS READINESS

The Standardization community should seek out and identify standardization products and tools that play a role in logistics readiness. The products may include approved parts lists, parts management practices, and research tools such as the Weapons System Tool proposed by the Electronic Document Development, Coordination, and Maintenance IPT. The Standardization community should create a searchable reference database for these materiel standards and documents and provide information or links that will aid users in obtaining the documents.

IDENTIFY AND PROMOTE METRICS FOR MEASURING LOGISTICS READINESS

The Standardization community should seek out and identify metrics that are used or that could be used to measure or demonstrate logistics readiness, and that show the benefits of standardization on logistics readiness. The metrics could be quantitative or qualitative. The metrics might be used in milestone reviews, program assessments, or in documents defining logistics readiness requirements. The Standardization community should create a searchable reference database for these metrics and provide information or links that will aid users in understanding and using the metrics. The Standardization community should provide data that illustrates logistics readiness performance as reported using the metrics.

IDENTIFY LOGISTICS READINESS AND STANDARDIZATION BEST PRACTICES

The Standardization community should seek out and identify logistics readiness and standardization best practices that demonstrate how to improve logistics readiness quickly, easily, or at lower cost. The best practices could be management, engineering, logistics, or operational practices. The best practices might be reinforced using case studies, reward, and recognition. The Standardization community should create a searchable reference database for best practices and provide information or links that will aid users in understanding the best practices and in contacting those who have used the best practices.

IDENTIFY AND DOCUMENT LOGISTICS READINESS ACHIEVEMENTS, SUCCESS STORIES, AND CASE STUDIES

The Standardization community should seek out and identify exceptional logistics readiness achievements and success stories. The Standardization community should develop case studies that document and demonstrate how the best programs achieved logistics readiness successes by using standardization practices. The case studies could document processes, management techniques, engineering solutions, logistics impacts, or cost savings. The Standardization community should create a searchable reference database for achievements, case studies, and success stories and provide information or links that will aid users contacting those who are involved in the documented achievements.

ANSWER FREQUENTLY ASKED QUESTIONS ABOUT LOGISTICS READINESS

The Standardization community should seek out frequently asked questions regarding logistics readiness. The Standardization community should identify and document the answers to the questions. The Standardization community should create a searchable reference database for frequently asked questions and provide examples or links to programs or people who have deeper knowledge regarding the topic of the questions. Examples of questions might include:

- How do I provide incentives to contractors to provide standard parts in their products?
- What standardization tools and products are available to help improve logistics readiness?

PROVIDE OR LINK TO LOGISTICS READINESS FORUMS

The Standardization community should seek out, identify, or create forums for dialogue about logistics readiness. The Standardization community should develop forums on the portal that will help people in the logistics readiness and standardization communities work together. The Standardization community should identify resources able to participate in or help facilitate on-line logistics readiness forums.

COLLECT AND REPORT LOGISTICS READINESS NEWS

The Standardization community should seek out news, current events, what is new, or similar information features about Logistics Readiness issues. The Standardization community should make the logistics readiness news available through the portal in an on-line newsletter or similar feature. The Standardization community should identify people in the logistics readiness community to serve as sources or conduits of logistics readiness news. The Standardization community should identify key logistics readiness offices that might provide routine content for the portal or who might maintain selected logistics readiness features on the portal. The Standardization community should identify offices that would use the portal to host information about their organizations. The Standardization community should create a searchable reference database for logistics readiness news and provide information or links to other sources of logistics readiness news.

PROMOTE ACTION ON LOGISTICS READINESS ISSUES

The logistics readiness knowledge management portal must have resources that solicit, identify, and promote action to resolve logistics readiness and standardization issues.

The Standardization community should encourage users to address logistics readiness issues. The Standardization community should maintain a list of known issues on the portal with identified community areas affected by the issue. The Standardization community should explore the issues, determine the impacts, and post the findings or results. The Standardization community should identify domains or other entities that need to be involved in finding solutions to issues. For example, a SAST, customer functional board, or enterprise forum might be best qualified to offer solutions in a given situation.

IDENTIFY, PROVIDE, OR LINK TO LOGISTICS READINESS-RELATED EDUCATION AND TRAINING

The Standardization community should seek out and identify education and training resources related to logistics readiness. The training resource may be courses, books, articles, films, or a variety of other media. The Standardization community should create a searchable reference database for these education materials and provide information or links that will aid users in obtaining the training or documents.

EDUCATE THE LOGISTICS READINESS AND STANDARDIZATION COMMUNITIES ABOUT ACHIEVING LOGISTICS READINESS THROUGH STANDARDIZATION

The Standardization community should seek out and identify resources that specifically relate standardization to logistics readiness. The resource may be stories, cases, training courses, books, articles or a variety of other media. The Standardization community should create a searchable reference database for these resources and provide information or links that will aid users in obtaining additional information.

RECOGNIZE AND REWARD LEADERSHIP FOR LOGISTICS READINESS RESULTS

The Standardization community should seek out and identify key individuals in the logistics readiness community who are pace setters, opinion leaders, advocates, promoters, or most successful leaders. The people might come from management, acquisition, engineering, logistics, standardization, or operational practices. The Standardization community should reinforce leadership behaviors using case studies, reward, and recognition. The Standardization community should create a searchable reference database for reward and recognition and provide information or links that will aid users in the recognized leaders. Examples of potential rewards and recognition include:

- Annual Defense Standardization Program Awards
- Recognition through newsletters, articles, case studies.

LINK IMPLEMENTATION WITH THE STANDARDIZATION PORTAL DEVELOPMENT STRATEGY

The logistics readiness content and features are contained in the DSP portal. While the logistics readiness portion should appear to stand alone as a clear and significant attractor for the people in that community, the content also should be fully integrated into the overall DSP portal structure. The Standardization community should implement the logistics readiness component following the portal creation and leverage on the portal's standardization content and features.

Those who design and develop the portal must be fully cognizant of the parallel structure and functionality for standardization, interoperability, and logistics readiness so that they can create simultaneous capabilities and capacities to host all three subjects as appropriate in the most cost effective manner.

The Standardization community should use the implementation plan for the portal set of recommendations for logistics readiness and interoperability capabilities as well. The Standardization community should seek partnerships in the logistics readiness and interoperability communities to participate in and support the portal development effort.